

Notice of Allowability

Application No.

10/501,912

Applicant(s)

SAKAI, YASUHIRO

Examiner

Van T. Trieu

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Preliminary Amendment filed on 26 July 2004.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/16/05
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance: there are no prior arts teaching or suggesting of a non-power source type monitor device in a non-power source type security device in which a power of the security device for monitoring whether the door or the window of a building is opened or closed, whether a person enters or exits from a building or a room, or whether a vehicle parks in or leaves from a parking place is supplied by a piezoelectric power generating device using a piezoelectric ceramics member, the piezoelectric power generating device generating power by applying a distortion deformation to the piezoelectric ceramics member, the piezoelectric power generating device comprising:

a pair of piezoelectric ceramics members;

a cushion material for holding each of the piezoelectric ceramics members under a soft state in which the natural oscillation of each piezoelectric ceramics member is hardly transmitted to other structural members;

a pendulum member oscillating through one elastic member in accordance with an excitation;

a pair of the other electric members fixed to both the ends of the one elastic member and extending in a direction perpendicular to the one elastic member; and

hard striking members respectively fixed to the end parts of the pair of the other elastic members to alternately strike the pair of the piezoelectric ceramics members and

apply an impact respectively to the piezoelectric ceramics members; wherein during the oscillation of the pendulum member, a striking operation that one striking member of the pair of the striking members strikes one piezoelectric ceramics member of the pair of the piezoelectric ceramics members and a separating operation that the other striking member of the pair of the striking members is separated from the other piezoelectric ceramics member of the pair of the piezoelectric ceramics members are continuously alternately repeated to continuously generate power.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ito et al discloses an ultrasonic motor comprising a stator-side elastic member having a rotational symmetrical shape, a rotor-side elastic member having a rotationally symmetrical shape, a stator-side piezoelectric element for imparting vibrations to the elastic member, a rotor-side piezoelectric element for imparting vibrations to the rotor-side elastic member. [US 6,288,475]

Hurst discloses a horn with a piezoelectric membrane to generate electrical power. [US 6,166,624]

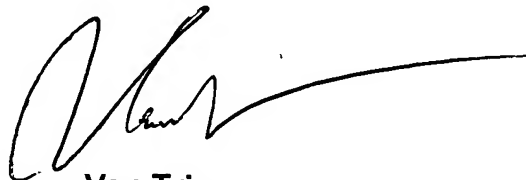
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Oota et al discloses a piezoelectric actuator comprising a pair of piezoelectric elements, bistable snap-action means and projectile means attached to the snap-action means in an impact receiving relationship alternately with the piezoelectric elements.

[US 4,6272,257]

3. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (571) 272-2981.

A handwritten signature in black ink, appearing to read 'Van Trieu', with a long horizontal flourish extending to the right.

Van Trieu
Primary Examiner
Date: 12/19/05